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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,605	03/30/2001	Thomas P. McGovern	CM03929H	8211

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EXAMINER

MILLER, BRANDON J

ART UNIT PAPER NUMBER

2683

DATE MAILED: 10/21/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/822,605

Applicant(s)

MCGOVERN ET AL.

Examiner

Brandon J Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunn in view of Phillips.

Regarding claim 1 Dunn teaches a method of achieving a dynamic channel bandwidth in a system and initializing a channel aggregation strategy (see col. 10, lines 46-51 and col. 12, lines 16-18). Dunn teaches establishing a reserved channel aggregation (see col. 15, lines 22-26). Dunn teaches receiving a request for a service requiring additional bandwidth from a device, generating an updated channel aggregation based upon a request and a channel aggregation strategy to create an updated channel aggregation; and signaling the updated channel aggregation to at least on mobile station (see col. 11, lines 15-25 & 62-67 and col. 12, lines 1-8 & 16-42). Dunn does not specifically teach a default channel aggregation, signaling a mobile station using an in-band message. Dunn does teach signaling the updated channel aggregation to at least on mobile station via a message (see col. 12, lines 16-37). Phillips teaches a establishing a default channel allocation (see col. 2, lines 60-65, col. 4, lines 5-10 & 15-20, and col. 5, lines 60-63). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include signaling a mobile station using an in-band

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message because this would allow for the user of a mobile device to be allocated variable bandwidth on demand by aggregation of available communication channels.

Regarding claim 2 Dunn teaches aggregating a plurality of channels according to the needed bandwidth and channel aggregation strategy (see col. 6, lines 35-40).

Claims 3-7 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunn in view of Phillips and Sun.

Regarding claim 3 Dunn and Phillips teach a device as recited in claim 1 except for aggregating a plurality of narrowband channels into at least one wideband channel based on the updated channel aggregation. Sun teaches aggregating a plurality of narrowband channels into at least one wideband channel based (see col. 4, lines 54-63). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include aggregating a plurality of narrowband channels into at least one wideband channel based on the updated channel aggregation because this would allow for transmitting wideband signals via a communications system adapted for transmitting narrowband signals.

Regarding claim 4 Dunn teaches a plurality of channels that are adjacent (see col. 9, lines 18-20). Sun teaches a plurality of narrowband channels (see col. 4, lines 35-36).

Regarding claim 5 Dunn teaches a plurality of channels that are non-adjacent (see col. 8, lines 63-67 and col. 9, lines 10). Sun teaches a plurality of narrowband channels (see col. 4, lines 35-36).

Regarding claim 6 Dun and Phillips teach a device as recited in claim 1 except for dividing at least one wideband channel into a plurality of narrowband channels. Sun does teach dividing at least one wideband channel that overlay one or more narrowband channels into a

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plurality of data streams (see col. 4, lines 49-52). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include dividing at least one wideband channel into a plurality of narrowband channels because this would allow for a device to be allocated variable bandwidth on demand by aggregation of available communication channels.

Regarding claim 7 Sun teaches a device as recited in claim 6 and is rejected given the same reasoning as above.

Regarding claim 9 Dunn and Phillips teach a device as recited in claim 1 except for signaling an in-band message to inform newly joining mobile stations of a present channel configuration. Dunn does teach a message to inform mobile stations of a present channel configuration (see col. 12, lines 28-35). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include an in-band message to inform newly joining mobile stations of a present channel configuration because this would allow for a mobile device to be dynamically allocated available communication channels.

Regarding claim 10 Sun teaches invoking a wideband channel when wideband services are needed (see col. 4, lines 14-17). Sun teaches invoking non-interfering narrowband channels within a domain of the wideband channel (see col. 3, lines 55-60 and 4, lines 34-40).

Regarding claim 11 Dunn teaches a device that is selected from a group consisting of a mobile station and a fixed host (see col. 7, lines 45-50).

Regarding claim 12 Dunn teaches signaling performed via at least one fixed site (see col. 4, lines 50-53, 60-61 & 66-67 and col. 8, lines 1-2).

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Regarding claim 13 Dunn teaches determining an amount of additional bandwidth required for service (see col. 10, lines 46-50, col. 12, lines 24-32 & 65-67 and col. 13, lines 1-4).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dunn in view of Phillips, Sun and Hassan.

Regarding claim 8 Dunn and Phillips teach a device as recited in claim 1 except for a message that includes a next bandwidth and center frequency of a transmitter and a receiver of a fixed site, a minimum time duration of a next receive state of a fixed site, or a minimum time duration of a next transmit state of a fixed site. Dunn does teach a message that includes a next bandwidth of a transmitter and a receiver of a fixed site, and a time duration of a next transmission state of a fixed site (see col. 8, lines 50-67 and col. 9, lines 1-2). Sun teaches a center frequency of a transmitter and receiver (see abstract, col. 5, lines 7-13). Hassan teaches a minimum time duration of a period of non-use between transmissions (see col. 7, lines 5-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a message that includes a next bandwidth and center frequency of a transmitter and a receiver of a fixed site, a minimum time duration of a next receive state of a fixed site, or a minimum time duration of a next transmit state of a fixed site because this would allow for increased efficiency of wireless communication between user devices that demand increased bandwidth for transmission.

Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunn, in view of Phillips and Charas.

Regarding claim 14 Dunn teaches a method of achieving a dynamic channel bandwidth in a system and loading reserved channel configuration (see col. 12, lines 16-32 and col. 13, lines 1-

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11). Dunn does not specifically teach loading a channel scan list and a default channel configuration, scanning a set of channels for a channel with acceptable quality or receiving an in-band message. Dunn does teach receiving a message having an updated channel aggregation, and modifying transmit and receive channels based on the message (see col. 11, lines 16-37 & 62-67 and col. 12, lines 1-8 & 16-42). Phillips teaches a establishing a default channel allocation (see col. 2, lines 60-65, col. 4, lines 5-10 & 15-20, and col. 5, lines 60-63). Charas teaches a channel scan list (see col. 6, lines 4-10). Charas teaches scanning a set of channels for a channel with acceptable signal quality (see col. 3, lines (17-21). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include loading a channel scan list and a default channel configuration, scanning a set of channels for a channel with acceptable quality or receiving an in-band message because this would allow for the user of a mobile device to be allocated variable bandwidth on demand by aggregation of available communication channels.

Regarding claim 15 Dunn, Phillips, and Charas teaches a device as recited in claim 14 except for updating a channel scan list and a default channel configuration based on an in-band message. Dunn does teach updating a channel configuration based on a message (see col. 12, lines 37-42). Phillips teaches a establishing a default channel allocation (see col. 2, lines 60-65, col. 4, lines 5-10 & 15-20, and col. 5, lines 60-63). Charas does teach a channel scan list (see col. 6, lines 4-10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include updating a channel scan list and a default channel configuration based on an in-band message because this would allow for

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increased efficiency of wireless communication between user devices that demand increased bandwidth for transmission.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dunn in view of Sun.

Regarding claim 16 Dunn teaches a system for achieving a dynamic channel bandwidth and at least one fixed station (see col. 10, lines 35-51 and col. 12, lines 16-18). Dunn teaches at least one mobile station in radio frequency communication with the at least one fixed site (see col. 10, lines 35-46), and at least one resource microprocessor, controlling the at least one fixed site, for performing aggregating a plurality of channels (see col. 10, lines 20-42). Dunn does not teach aggregating a plurality of narrowband channels into at least one wideband channel or dividing at least one wideband channel into a plurality of narrowband channels. Sun teaches aggregating a plurality of narrowband channels into at least one wideband channel based (see col. 4, lines 54-63). Sun teaches dividing at least one wideband channel that overlay one or more narrowband channels into a plurality of data streams (see col. 4, lines 49-52). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include aggregating a plurality of narrowband channels into at least one wideband channel or dividing at least one wideband channel into a plurality of narrowband channels because this would allow for the user of a mobile device to be allocated variable bandwidth on demand by aggregation of available communication channels.

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Khayrallah et al. U.S Patent No. 6,490,314 discloses a method for overlay of narrowband and wideband communication systems.

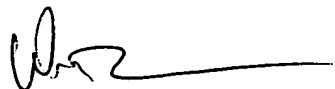
Lagneborg et al. U.S. Patent No. 6,529,734 discloses bandwidth supply dependent cell level.

Dent U.S. Patent No. 5,745,856 discloses a radio receiver for demodulating both wideband and narrowband modulated signals.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J Miller whose telephone number is 703-305-4222. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.


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